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Averaging of Particulate Emissions From 1985 and Later Model Year Diesel-Fueled Light-Duty Vehicles and Light-Duty Trucks; Proposed Rulemaking

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 85 and 86

[AMS-FRL 1941-5]

Averaging of Particulate Emissions from 1985 and Later Model Year Diesel-Fueled Light-Duty Vehicles and Light-Duty Trucks

AGENCY: Environmental Protection Agency.

ACTION: Notice of Proposed Rulemaking.

SUMMARY: This notice proposes a program which would permit manufacturers of light-duty diesel vehicles (LDDVs) and light-duty diesel trucks (LDDTs) to average the particulate emissions of their diesel vehicles. This rulemaking comes as a part of the Agency's recently announced effort to ease the regulatory burden on the automotive industry. Implementation of the program proposed here should allow the makers of LDDVs and LDDTs to meet the 1985 particulate standards with less emission control hardware. EPA estimates that implementation of this proposal would save $188–$376 million over a five-year period. At the same time, the Agency does not expect this averaging program to cause any appreciable loss of air quality benefits. In addition, this notice proposes to delete light-duty truck high-altitude regulations which are unrelated to the averaging program and which had been erroneously added to Part 86 during a previous rulemaking. Please note that EPA specifically requests comment on a number of items near the end of this preamble. The Agency encourages all individuals and organizations which are interested in this rulemaking to participate in the public hearing and/or submit their comments to the docket.

DATES: EPA will hold a public hearing on this notice on February 2, 1982. The hearing will convene at 9:00 a.m. and adjourn at 5:00 p.m., or at a later time if necessary to complete the business of the hearing. Comments will be accepted to the docket for a period of 30 days following the close of the hearing, and should be submitted on or before March 4, 1982.

ADDRESSES: The hearing will take place in the conference room at the EPA Motor Vehicle Emissions Laboratory, 2565 Plymouth Road, Ann Arbor, MI 48105.

Written comments, other than those submitted directly at the hearing, should be submitted (preferably 4 copies) to: Central Docket Section (A–130), Environmental Protection Agency, Attn: Docket No. A–81–31, 401 M St. SW., Washington, D.C. 20460.

Docket No. A–81–31 is located in the U.S. EPA, Central Docket Section, West Tower Lobby, Gallery I, 401 M St. SW., Washington, D.C. The docket may be inspected between 8 a.m. and 4 p.m. on weekdays.

FOR FURTHER INFORMATION CONTACT: Jeff Alson, Emission Control Technology Division, U.S. Environmental Protection Agency, 2565 Plymouth Road, Ann Arbor, MI 48105, Telephone: (313) 668–4317.

SUPPLEMENTARY INFORMATION:

I. Background

The program proposed in this notice has its origins in the development of the light-duty diesel particulate standards, published on March 5, 1980 (45 FR 14496). During the comment period on those standards, General Motors and Volkswagen submitted proposals for particulate averaging schemes. GM's proposal was a "corporate" average particulate standard (CAPS) in which a manufacturer could balance diesel particulate emissions with gasoline-fueled vehicle particulate emissions. VW's proposal was a diesel only average standard, similar to the one proposed here.

EPA considered the GM and VW proposals, but chose not to adopt them in the final rule. GM's CAPS proposal, the Agency concluded, would be highly favorable to a manufacturer which produced many gasoline-fueled engines (which emit very low levels of particulate). It would be able to offset the emissions of many or all of its diesels with its gasoline-fueled vehicles, perhaps avoiding any diesel particulate control at all. Such a program, on the one hand, would be of little use to a manufacturer making mostly diesels since there would not be nearly as much opportunity for averaging. Further, when a manufacturer making a large number of gasoline-fueled vehicles is also a major producer of diesels—as GM itself is becoming—a CAPS program would work against the need for particulate control since a large segment of the new diesels in the country could be produced with little or no particulate control.

Although Volkswagen's diesel average particulate standard (DAPS) proposal was very sketchy, the Agency believes that a DAPS program might avoid many of the problems of CAPS and seriously considered the concept. The final decision to reject a DAPS approach as a part of the original light-duty diesel particulate rulemaking was based on a number of factors, including its uncertain benefits and its probable complexity (see 45 FR 14502). These factors will certainly remain issues in this rulemaking.

Today, however, there are other factors to consider as well. The industry is now facing a very different economic climate than it was during the original particulate rulemaking. It is likely now that even a limited amount of additional flexibility might be useful to the industry (although EPA actually expects the increased flexibility offered by the proposed program to be substantial). Likewise, the complexity of a DAPS type program may well be more acceptable now to both industry and the Agency if it indeed results in increased compliance flexibility. It is in light of these new considerations that the Agency has initiated this rulemaking.

EPA, in a separate action, is considering major revisions of its new vehicle compliance program (see 46 FR 33365, June 29, 1981), including averaging concepts broader than the program proposed here. This proposal, in contrast, is designed to address certain immediate aspects of compliance with the particulate standards and to be compatible with the Agency's existing compliance programs. At the same time, as the Agency considers major revisions of its compliance program, this averaging program could be incorporated into any revisions ultimately adopted. Thus, the program proposed here can fit into a general EPA move toward averaging, yet it does not in itself complete that move.

Why is the Agency not proposing an overall averaging program at this time? Time considerations, as well as a concern that elements in a broader averaging program may require supporting statutory changes, are the primary reasons. This program is designed to provide quick relief to light-duty diesel manufacturers as the 1985 compliance deadline approaches. Any broad revamping of the compliance program would take considerably more time for Agency preparation and adequate public participation. Thus EPA has limited the scope of this proposal to light-duty particulate averaging.

The Agency is taking this opportunity to propose corrections to the current regulations which are unrelated to the particulate averaging program. During a previous rulemaking (45 FR 63734, September 25, 1980) paragraphs affecting light-duty truck high-altitude regulations were erroneously added to Part 86. These regulations are proposed to be deleted below. Because these changes are being made to correct a previous error and are consistent with

actions already taken, no further analysis of the change is necessary.

II. Description of the Proposed Program

This section outlines a specific proposal for a light-duty vehicle and light-duty truck particulate averaging program. This program would allow manufacturers to meet the 1985 and later light-duty diesel vehicle (LDDV) and light-duty diesel truck (LDDT) particulate standards of 0.20 g/mi and 0.26 g/mi, respectively, by averaging the emissions of their diesel engine families. This proposal would allow averaging of LDDV or LDDT families separately and would also allow families from the two vehicle classes to be averaged together.

Under the proposed program the manufacturer would establish individual particulate emission limits for each engine family included in the particular averaging program. These limits would be set such that when they were weighted by their respective family production and averaged together, the manufacturer's resulting diesel average particulate level would be equal to or below the applicable level standard.

This is not the only way to construct an averaging program. In fact, during the original particulate rulemaking, Agency consideration of how an averaging program might work resulted in the suggestion that it might be more appropriate to focus on corporation-wide compliance (more along the lines of the Corporate Average Fuel Economy program) rather than engine family compliance. While such a program would probably give manufacturers even greater flexibilty, it would necessarily require changes in EPA's existing compliance program, a task which is outside the scope of this proposal, as discussed earlier.

Therefore, the proposed program really involves two independent levels of compliance. On one level, a manufacturer would establish for each of its LDDV and LDDT families an emission limit (as distinguished from an emission standard) against which the emissions of each member of the family could be compared. Secondly, the production-weighted average of the family levels would have to be equal to or less than the applicable particulate standard (0.20 g/mi for LDDVs, 0.26 g/mi for LDDTs, or some composite level if both LDDVs and LDDTs are averaged together). The following paragraphs discuss these two aspects of compliance.

A. Compliance with the Family Particulate Emission Limits

Under the proposed program, each manufacturer would set a particulate emission limit for each of its diesel families accurate to the nearest one hundredth gram-per-mile of particulate. The limits would have exactly the same relationship to their respective engine families as an emission *standard* currently has to *all* families. Certification, SEA, and recall, which today generally work on an engine family basis, would not need to change in any major way. The engine criteria which now distinguish one engine familiy from another would also stay the same. In this way the proposal avoids the need to design a new compliance scheme to make sure that cars and light trucks meet their assigned limits. At the same time, the proposal is compatible with the streamlined certification which EPA began implementing beginning with the 1980 model year.

It is important to note that just as in the case of current emission standards it would be the family emission limit that EPA could enforce, not the actual levels which a certification or SEA test vehicle attained. Therefore, it is the family limits and not engine test data (from certification or assembly-line audit testing) that would be used in the calculation of compliance with the applicable particulate standard (see Part B. below).

There is a problem that arises in an averaging program which results from allowing some families to certify above the promulgated standard. The problem is that these higher emitters might become concentrated in a certain geographic area, perhaps causing localized adverse air quality effects (for example, if the high emitters became a large portion of a city's taxi fleet). To the extent that this is a valid concern—and EPA requests specific comments in this area later in this preamble—some sort of limitation on how high an individual family emission limit can go seems prudent. Of course there is actually something of a limit built into averaging because no manufacturer will have an unlimited range of vehicle emission levels and production volumes with which to work. But these built-in limits nevertheless will vary widely among manufacturers, and it may be appropriate to establish general numerical limitations on the family emission limits.

In determining whether to establish a family limit ceiling, EPA needs to resolve two issues. First, at what point does the ceiling level begin to restrict the economic gains from averaging. Second, what localized concentration problems are likely to arise in the absence of a ceiling. Concerning the first item, a factor or two above the standard for the ceiling (0.4 g/mi) might not be restrictive because of the inherent limits facing a manufacturer in developing the necessary offsetting low emission credits. A possible exception, however, might arise if the ceiling were to be set at the level of the 1982 particulate standard of 0.6 g/mi, allowing some manufacturers which certified vehicles close to that standard in 1984 to carry over their certification to 1985 without altering the engines. However, EPA does not know whether this option would actually be exercised, and the Agency is concerned about what adverse local air quality effects a ceiling that high might create. On both of these points, EPA hopes to obtain detailed information during the comment period. At this time EPA believes it is reasonable to propose a ceiling on the family emission limits, and is considering alternative ceiling levels of 0.4 and 0.6 g/mi. Pending final resolution of these questions, we are proposing a 0.4 g/mi ceiling level.

EPA is also concerned about potential "localized" health effects which could arise from allowing manufacturers to average particulate emission levels of vehicles designed for marketing only in areas covered by Federal, low-altitude emission standards with vehicles designed for marketing only in areas covered by California emission standards or only in areas covered by Federal, high-altitude Standards. EPA is contemplating not permitting averaging of particulate emission levels between vehicles designed for marketing under a set of standards associated with only one of these different geographical regions with vehicles designed for marketing under a different set of "regional" standards on the basis of the following considerations:

—Emissions from vehicles marketed exclusively in one of these geographical regions do not generally mingle with emissions from cars marketed exclusively in other regions, and thus do not greatly influence the air quality in those other regions, and

—Averaging between vehicles designed for different regional standards could permit a manufacturer to "decontrol" all vehicles specially designed for marketing in one region (e.g., by omitting trap-oxidizers) if it can achieve "extra" control on other vehicles using different emission control system designs marketed in a different region under a different set of standards; thus, the adverse effects of the extra emissions from the decontrolled vehicles in the first region would not be offset by any vehicles in that region subject to extra control.

We are requesting specific comments on whether allowing averaging between vehicles designed for marketing under standards associated with different geographical regions is appropriate, and if not, how EPA should calculate separate averages for different regions.

The proposal would require the manufacturer to place a label on the engine (or make an addition to the existing label) recording what the applicable emission limit was for that family at the time the car or truck was produced. In this way EPA can assure that every individual engine can be easily associated with its proper emission limit throughout its life, even if the emission limit is changed part way through the production year (as is discussed below).

In summary, compliance with the family limits in this proposal would be measured and enforced in a manner very similar to the way compliance with any emission standard is judged today. Essentially the same compliance structure now in place would work. The ceiling levels and the labeling requirements, on the other hand, are new provisions which result from the special aspects of this type of averaging program.

B. Compliance with the 1985 Particulate Standards

There is a second, more general aspect to compliance under the proposed program. This is the means by which the manufacturer can demonstrate compliance, on average, with applicable particulate standards. Unlike compliance with the family limits, which can operate with today's compliance apparatus, compliance with the applicable particulate standard requires a new perspective. The key parameters become engine family production and family emission limits.

Under the averaging system proposed here, manufacturers would set their family emission limits such that when weighted by the respective production figures to compute a production-weighted average, the limits would average to a level which is less than or equal to the applicable particulate standard. If a manufacturer includes both LDDV and LDDT engine families, their emission limits could be averaged together in computing compliance with the applicable standard.

The calculation of a manufacturer's production-weighted average emission level would be fairly straightforward. If the averaging is to be done only among vehicles of the same class (*i.e.*, only among LDDVs or LDDTs), then each family's production would be multiplied by that family's emission limit. When the sum of these values was divided by the total diesels produced, the company's diesel average particulate level would result. This number could be directly compared to the applicable standard (LDDV or LDDT).

If the averaging is to be done among *both* LDDVs and LDDTs, the separate standards for the two classes must be synthesized into a single, composite standard. The following expression illustrates how a production-weighted standard would be computed for each manufacturer.

$$\frac{x(0.20)+y(0.26)}{(x+y)} = \text{Mfr. Composite Particulate Std.}$$

Where x represents total LDDV sales and y represents total LDDT sales.

This production-weighted composite standard would become the measure of compliance when both classes were to be averaged together. The calculation of the company's average particulate level would remain the same as is described above (*i.e.*, each family limit weighted by its production and averaged).

Under the proposed program, each manufacturer would have complete flexibility in deciding how to apply averaging to its light-duty diesel fleet, or whether to average at all. EPA would grant a certificate of conformity to each family that demonstrated compliance with its family emission limit. The certificate would contain the provision that its validity was conditional in whole or in part on the manufacturer meeting the applicable particulate standard at the end of the model year. During production, a manufacturer would have full responsibility for taking whatever action was necessary to ensure that its diesel production met the applicable standard at the end of the production year. This might involve recertifying some families to new emission family limits or adjusting production targets in response to new production patterns. In any event, it would only be after production was complete that EPA would enter the process in order to verify that the family limits, weighted by the year's production, showed compliance with the applicable particulate standard(s).

There are a number of ways in which a manufacturer could manipulate its diesel fleet to assure compliance with the applicable particulate standard by the end of the production year. The possibility will exist, as it does today, for a manufacturer to change the engine operating characteristics or hardware in such a way as to create a new engine family (and, under averaging, to establish a new family emission limit). Beyond that, EPA is introducing the additional flexibility of creating a new family limit without making any changes to the engine. (This option might become useful to a manufacturer which found that the production emission levels of a family were sufficiently below the family's emission limit that it could lower the limit without physically changing the vehicle.) To change a family limit the manufacturer would have to demonstrate compliance based upon its existing certification data and any existing Selective Enforcement Audit test data. If a family limit were changed, EPA would issue a new certificate covering subsequent production of the vehicle, and each vehicle produced thereafter would need a revised label recording its new family emission limit.

Revised certificates could not apply retroactively. First of all, this would create problems with the vehicle labeling requirements. A retroactive change in the family emission limit would mean that the labels which had been placed on the affected vehicles would no longer be correct. Accurate labeling is, of course, very important for the in-use aspects of EPA enforcement programs. In addition, retroactivity could create a "loophole" for abuse of the averaging program. Knowing that it could retroactively adjust the family emission limit for a family found out of compliance during the production year could lead a manufacturer to set a family emission limit which was artificially low. Since only a portion of a manufacturer's fleet would normally be audited by EPA, such a maneuver might well go undetected. If it were discovered, there would be no loss to the manufacturer other than the need to adjust the family limit upwards.

As far as the proposed regulations are concerned, there would be no limit on the number of times that a manufacturer could seek new certificates for its families. The only limit would be the practical one of EPA's ability to process the requests, which the Agency does not anticipate to be a major obstacle.

EPA would not verify the manufacturer's compliance with the standard until the end of the model year. Nevertheless, the sanctions provided by the Clean Air Act should insure that a company which chooses to average its diesel particulate emission levels and which produces each of its engine families in compliance with its respective limits also maintain family production volumes such that the production-weighted average of the manufacturer's family limits indeed

meets the standard at year's end. Section 205 of the Act establishes a penalty of up to $10,000 for selling a vehicle not covered by a certificate of conformity. Since failing to comply with the promulgated standard because of an incorrect production volume mix will mean that the diesel fleet (or some portion of it) failed to satisfy conditions in its certificate(s), this would place the manufacturer in violation of Section 205. As is the case today, the threat of paying up to $10,000 per vehicle not covered by a certificate should assure that each manufacturer which uses averaging will make every effort to comply with the average particulate standard at the end of the production year.

Under the conditions included in the certificate covering a manufacturer's diesel engine families, a manufacturer most likely will not be liable for introducing all of its diesel vehicles into commerce without their being covered by a certificate. Instead, the manufacturer only would be potentially liable for civil penalties for those vehicles which cause the manufacturer's production-weighted family limit average to exceed the particulate standard.

For example, suppose a manufacturer initially plans to produce 100,000 light-duty diesel vehicles subject to 0.18 g/mi engine family limit, 50,000 vehicles subject to 0.22 g/mi family limit, and 25,000 vehicles subject to a 0.24 g/mi family limit. This would place the manufacturer's production-weighted family limit average precisely at the 0.20 g/mi particulate standard. Then suppose that at the end of the production year, each engine family meets its limit, but the manufacturer produced 60,000 vehicles subject to the 0.22 g/mi limit instead of the 50,000 it orignially had projected. In that case the manufacturer's production-weighted family limit average would exceed the particulate standard. As a result, the manufacturer could be liable for introducing into commerce 5,000 vehicles not covered by a certificate, since if it had produced 5,000 fewer vehicles in its highest emitting family (subject to the 0.24 g/mi limit) its production-weighted family limit average would precisely meet the 0.20 g/mi standard.

Of course, in exercising its authority under Section 205, the Agency would have discretion in choosing which remedies and/or penalties to pursue. EPA could accomplish this by initiating a consent decree action under that section. In recommending penalties, if any, in a Court proceeding, the Agency could consider such factors as: (1) The degree of contravention of the standard; (2) the number of vehicles which cause the failure to achieve the particulate standard; and (3) the degree to which a recall would be successful, considering vehicle owner response rate, in lowering the particulate levels of the engine families involved to such a degree that the manufacturer's production-weighted average (adjusted for the results of the recall), would comply with the particulate standard.

EPA has devised the averaging program to provide a clear structure around which to build a meaningful and manageable particulate averaging program. The Agency expects and hopes that the industry and the general public will play a large role in helping to refine the details of the proposed program by suggesting additions and improvements.

III. Effects on Manufacturers' Flexibility

Unlike most EPA regulatory efforts, which result in improved air quality, the benefits of this rulemaking will be measured in terms of increased industry flexibility and hence reductions in compliance costs. The goal is a well-designed particulate averaging program which will result in real capital cost savings for light-duty diesel manufacturers without significantly reducing the air quality improvements which will be achieved by the 1985 particulate standards. For this goal to be realized, EPA has to make sure that the averaging program will open up new options in design and/or marketing which can lower costs.

EPA believes this proposed program will indeed introduce new flexibility—and the accompanying cost savings—into particulate emission control efforts. What follows is a brief analysis of the kinds of hardware reductions and subequent cost savings that EPA expects would result from this proposed averaging program. This analysis is not intended to be an extensive study of the issues but rather a "first pass" at a quantitative investigation of the benefits of the proposed program. EPA will rely heavily on industry and public input in making a final, detailed analysis of the issues.

A. Effect on Required Control Technology

In the original light-duty particulate rulemaking (referenced above), EPA projected that nearly all 1985 LDDVs and LDDTs would need to be equipped with trap-oxidizers in order to meet the 1985 particulate standards. (According to that original analysis, only VW Rabbits, which were estimated to make up six percent of all diesels, could avoid traps.) That assessment can be tempered somewhat today since more small and lower particulate emitting engines are emerging. Nevertheless, the use of traps will be so widespread that if the averaging program can make it possible for some manufacturers to reduce the number of traps that their diesel fleets require (or to use less expensive traps), real savings in hardware costs will be available.

At least four companies should benefit from particulate averaging—Volkswagen, General Motors, Ford, and Daimler-Benz. That is, there is strong evidence that these four will be marketing more than one engine family *and* will have at least one family capable of emitting below the promulgated standard (either with or without a trap). As diesel production becomes more widespread, other manufacturers will be able to take advantage of averaging. Before looking in more detail at the four manufacturers, it will be helpful to outline how EPA believes they could use averaging to limit the number of required traps.

The analysis assumes a hypothetical scenario where a manufacturer has one family of engines (call it "A") which emits particulate matter at around 0.5 g/mi, another family ("B") which emits around 0.35 g/mi, and two small engine families ("C" & "D") which emit at about 0.25 and 0.18 g/mi (all are engine-out emissions). To avoid unnecessary complications, the analysis assumes further that all four families are passenger cars. Whether or not the manufacturer chose to average the emissions from these families, family A would clearly need to be equipped with traps since these vehicles would otherwise exceed the 0.4 g/mi ceiling. Families B and C would definitely need traps in the absence of averaging. However, these families are close enough to the standard to benefit from an averaging program. Family D, while not requiring traps in any case, could play a role in helping to offset the higher emissions of families B and C in an averaging program.

Under an averaging program, the manufacturer could choose to put traps on the vehicles in family B, an approach which would result in emissions well below the 0.20 g/mi standard (even with traps no more efficient than today's prototypes). Depending on the sales distribution among the families, the low emissions of family B (with traps) along with those of family D might allow the vehicles from family C to be sold without traps. An alternative scenario might be to equip family C with traps (or conceivably even family D) in order to

have families with such low emissions that traps could be avoided on family B.

This simple example, of course, only touches on the range of options which a manufacturer might have. For example, the families could be subdivided into smaller families with and without traps. In addition, if one also considers that traps will surely vary in size and durability—and thus cost—still another level of options emerges. Thus in the example above, it might be possbile to put a cheaper trap on family A if there are enough vehicles in low particulate families to offset slightly higher emissions in family A. Finally, a manufacturer producing one or more light-duty diesel trucks would have the additional flexibility of averaging them in with its diesel passenger cars. The reader should bear in mind all of these potential degrees of freedom when the discussion below examines the way several manufacturers' 1985 diesel fleets are shaping up.

It should be clear that any analysis of how averaging would change the light-duty diesel industry's need for trap-oxidizers in 1985 and beyond cannot be precise at this time. First of all, the diesel passenger car and light truck market is expected to be a very volatile market in the 1980's, with many new and modified designs and various estimates of diesel market penetration. Second, even with some knowledge of each manufacturer's general plans, EPA is not in a position to project accurately individual family production or emission levels in 1985. Further, manufacturers would have several options in applying averaging to any given situation. The following examination, then, is in two parts. First, it establishes that at least four specific manufacturers will be able to make use of averaging in 1985. Then it will move to an industry-wide perspective to look at how the overall need for particulate traps is likely to be affected. The difficutly in making accurate assessments of this sort illustrates the importance of comprehensive input from the industry during the comment period.

1. *1985 Light-Duty Diesel Outlook—Four Companies.* Volkswagen is a prime candidate to make use of the proposed program. Its past experience and continued research with diesel technology make it certain that 1985 will see Volkswagen producing a subtantial number and variety of diesel cars and trucks. It already makes small diesels which emit particulate at very low levels. (VW's Rabbit is one current LDDV which is likely to meet 0.20 g/mi without using a particulate trap in 1985.) In addition, its diesel sales have been rapidly expanding.

Currently VW is producing three LDDV engine families and one LDDT family. EPA expects VW to continue making its small 1.6-liter engines and selling them in increasing numbers. At the same time, it is reasonable to expect that VW's aggressive diesel development program will result in its introducing one or more small new engines by 1985, such as a supercharged three-cylinder diesel which has been publicly discussed (Automotive News, June 29, 1981). VW's other engine families, the Audi and the VW light-duty truck, will probably continue to be the heavier emitters of particulate, with engine-out (non-trap) emissions in the 0.3–0.4 g/mi range. By 1985, the 1.6-liter engine as it is used in LDDVs may emit 0.15–0.20 g/mi, and if a still smaller engine is introduced, its particulate emissions may be even less. By any assessment, Volkswagen will be in an excellent position to make use of particulate averaging to avoid the use of particulate traps on some or all of the Audi vehicles and the 1.6-liter engine trucks.

General Motors (GM) has been marketing LDDVs since 1978 and LDDTs since 1979. Until recently, all of GM's diesels had been the relatively large and high particulate emitting 5.7-liter and 4.3-liter (now discontinued) engines. In 1981 GM certified the 1.8-liter Isuzu diesel engine which is available in its Chevette. This engine appears to be a relatively low particulate emitter and could thus provide GM with flexibility in an averaging program. By the late 1980's, however, GM's ambitious diesel program will likely be much farther along, with company estimates of diesel penetration ranging as high as 40 percent of total GM production by the end of the decade (WARD's Engine Update, June 15, 1981). By 1984 GM is expected to have a full line of additional diesel engines, with public discussion centering on a small 4-cylinder diesel engine, an approximately 2.5-liter V–5 diesel engine, a series of V–6 diesel engines (including, at minimum, 3.2-liter and 4.3-liter versions), and a 6.2-liter V–8 diesel engine designed specifically for light-duty trucks (WARD's Engine Update, August 15, 1980 and Automotive News, October 6, 1980). The smaller of these engines, along with the Isuzu engine, will likely be low particulate emitters and will put GM in an excellent position to take advantage of an averaging scheme because the many "clean" vehicles could perhaps offset a sizable number of non-trap vehicles. Since some of these new engines will probably be offered in light trucks as well as passenger cars GM would have additional flexibility. It seems clear that GM will become a primary beneficiary of the averaging program.

Ford does not today market any light-duty diesels, but is clearly moving in that direction. It plans to offer several imported diesel engines in the next few years. Ford's current plans call for having 2.4-liter, six-cylinder BMW-Steyr turbocharged diesel engines available for luxury cars by 1983 or 1984 followed by a more advanced four-cylinder turbocharged diesel engine from the same company for mid-size and full-size cars in 1985 or 1986. In addition, Toyo Kogyo will likely supply Ford with a small four-cylinder diesel for LDDTs by 1983 and a smaller four-cylinder diesel for LDDVs by 1984 (Automotive News, October 6, 1980 and May 18, 1981). Judging from their size, many or all of these engines ought to have particulate emissions well below the standard when equipped with traps, and the smallest of them might meet the standard without aftertreatment, even at a 1.0 g/mi NO_x level. (See the EPA Technical Report "Ford-EPA 1981 Light Duty Vehicle Diesel Correlation," No. EPA–AA–EOD–81–3, available in the docket, for the results of a Ford/EPA correlation test program using 2.0 and 2.2-liter Toyo Kogyo diesels.) Thus, even if it does not produce any diesels of its own, Ford should be able to make use of averaging.

Finally, Daimler-Benz should also be able to apply diesel averaging to its 1985 fleet. That company continues to expand US sales of its several diesel engine families. Although its sales are relatively small and any savings from averaging will not be a large fraction of total industry savings, Daimler-Benz should nonetheless find averaging a useful compliance tool.

It seems clear, then, that at least these four companies will be able to benefit from an averaging program. It is almost certain that several other manufacturers will benefit from an averaging program, though specific analysis of their post-1985 positions is now difficult because of uncertainty over marketing plans. Peugeot and Volvo presently sell LDDVs in this country but their U.S. diesel sales are such a small percentage of their worldwide diesel sales that their flexibility under averaging will be more a function of whether they attempt to expand U.S. diesel sales. Several large automobile manufacturers, such as Chrysler, Datsun, and Isuzu, presently sell no (or very few) diesel vehicles in the U.S. but may seriously enter the diesel market by 1985. Any manufacturer selling large numbers of

LDDVs or LDDTs would benefit from the averaging program, since even if the manufacturer had only one basic engine it could be divided into two (or more) engine families, with differing control hardware (for example, one family with a trap-oxidizer and one without). Therefore, it is apparent that particulate averaging would benefit almost every (and probably all) LDDV and LDDT manufacturers.

2. *Potential Industry-Wide Reductions in Trap Usage.* The following projection of how many less traps the light-duty diesel industry will use under an averaging program will rely on the sales projections developed in the final particulate rulemaking ("Regulatory Analysis of the Light-Duty Diesel Particulate Regulations for 1982 and Later Model Year Vehicles," February 20, 1980). The serious economic difficulties which the motor vehicle industry has encountered since EPA performed that analysis will certainly affect future light-duty diesel production. However, EPA believes the original projections of the general trends over the 1985 and later timeframe are still reasonably accurate. To the extent that EPA receives comprehensive data and projections from the manufacturers, the Agency will be able to update the analysis for the final rule.

In the original rulemaking EPA projected that 1.842 million light-duty diesels would be sold in 1985 ("Summary and Analysis of Comments on the Notice of Proposed Rulemaking for the Control of Light-Duty Diesel Particulate Emissions From 1981 and Later Model-Year Vehicles," Table V–5, p. 74). This figure did not include VW Rabbits, so the number should be adjusted upward to 1.931 million to add them (using the same basic data from the original analysis).

This projected 1985 fleet can be subdivided into four categories based on their non-trap particulate levels. EPA expects that some 70 percent of the light-duty diesels by that time will have engine-out emission levels very close to or below the 0.2 g/mi standard (and perhaps an even greater percentage if the NOx standard is greater than 1.0 g/mi). Of this 70 percent, it seems likely that more than half will be below the standard without traps. (This estimate differs from that in the original analysis which assumed only VW Rabbits would emit below 0.20 g/mi in 1985. The emergence of several other low particulate engines and prototypes, as discussed in the previous section, warrants today's more optimistic assessment.) This analysis will use a fraction of 40 precent below the standard and 30 percent slightly above (between 0.20 and 0.25 g/mi).

The remainder of the diesel fleet, including most light-duty trucks (which only have to meet a standard of 0.26 g/mi), will be made up of vehicles which have engine-out emissions above and below the ceiling of 0.4 g/mi. The vehicles which have engine-out emission levels around the ceiling will need traps. EPA estimates that these vehicles will make up 10 percent of the 1985 diesel fleet. This leaves 20 percent which would be in the 0.25 to 0.40 g/mi range, below the ceiling but needing traps in the absence of an averaging program.

According to this breakdown, 50 percent of the light-duty diesels in 1985 would have non-trap emissions between the standard and the ceiling and thus would require traps without averaging but might be able to be sold without traps if averaging is implemented. Applying this to the estimated total sales figure results in 966,000 vehicles which would be candidates to benefit from averaging.

The final step is to determine how many of these potential vehicles might be sold without traps under averaging. Here, estimating that averaging would allow the industry to avoid traps on between 25 and 50 percent of these vehicles, between 241,000 and 482,000 vehicles which otherwise would need traps could avoid them through averaging.

B. Resulting Cost Savings

It is possible to associate an average cost per trap with these figures and estimate a range of cost savings to the industry. In the cost analysis for the original particulate rulemaking, EPA used a range of costs for traps and their associated hardware which was based on engine size as well as production volume of the company. The analysis here is much more rudimentary because of its preliminary nature. In addition, EPA has assumed here a different fleet composition, one based on newer information about emerging low particulate engines. Hence, the cost estimates here should not be directly compared with the original cost numbers but rather should be taken as a rough but current projection of the economic benefits of the proposed averaging program.

In the original rulemaking, the sales-weighted cost for traps was given at $147–$174 in 1979 dollars. Based upon a midpoint estimate of $160 (1979 dollars) as a representative trap cost, this becomes $187 in 1981 dollars. For a range of 241,000 to 482,000 traps "saved" in 1985, there should be cost savings for that year of $45.1 million to $90.1 million (1981 dollars).

Now, in looking at total savings over the 1985–89 period, the analysis will assume that each year's cost savings will be the same (although as manufacturers gain experience with averaging and as they shift further toward smaller vehicles their savings might actually increase year by year). Expanding the 1985 savings to correspond to the full 5-year period, the total aggregate savings from this proposal should be $188 million to $376 million (1981 dollars, present value in 1985). This number may be taken as EPA's preliminary estimate of the benefits of the proposed averaging program.

It is important to note that there may be other costs or cost savings associated with particulate averaging (such as increased testing costs or savings in control technology other than traps). However, these effects should be small in comparison to the savings in particulate traps, and this analysis does not attempt to quantify them.

IV. Effect on Competition

The effect of averaging on competition between manufacturers has been a prime concern of EPA in evaluating various approaches to averaging. There are a number of ways in which the ability to make use of averaging's flexibilities varies from manufacturer to manufacturer. For example, a manufacturer producing only one basic engine line might certify that engine in two families, one with trap-oxidizers and one without (presuming that the basic engine could not meet the standard without control). This would reduce the number of traps which that manufacturer would need to use. However, that manufacturer would still have to sell some of its vehicles with trap-oxidizers. On the other hand, a manufacturer with several engine lines might be able to market a directly competing family with no trap-oxidizers at all. This could be done by equipping one of its other families with trap-oxidizers to meet the applicable standard. It could also be done if the second manufacturer had an engine family already below the standard available to use in averaging. Thus, through averaging the vehicles of the first manufacturer could be placed at a significant disadvantage compared to vehicles from the second manufacturer. Clearly then, the number of engine lines a manufacturer has will affect its ability to benefit from averaging.

There are other characteristics which affect a manufacturer's ability to use

averaging. Sales volume can be important. A manufacturer with high sales volume might be able to offset high particulate emissions from a relatively low sales family with lower emissions from a high sales family. Manufacturers with a wide range of engine sizes or vehicle weights could use their smaller, lighter (and presumably cleaner) vehicles to offset their larger, heavier vehicles. This would put them at an advantage compared to manufacturers producing only larger, heavier vehicles and therefore having nothing to average them with.

The nature of averaging, then, favors those manufacturers with broad product lines and high sales volumes. On the other hand, this particular averaging proposal is of limited scope, and thereby avoids some possible competitive impacts. The average together of gasoline-fueled and diesel engines, a possibility for gaseous emissions, does not enter into this program since gasoline-fueled engines are not subject to the particulate standards. The averaging together of light-duty vehicles and light-duty trucks is allowed in this program, but in such a way that the tendency for LDDVs to have lower emissions than LDDTs is compensated for in the determination of the composite particulate standard. Thus, there should be no competitive advantage for a manufacturer simply because it produces more or less of a certain class of vehicles.

Overall, EPA believes that the competitive impact of this averaging proposal will not place any manufacturer at a significant disadvantage. However, the potential for affecting the competitive environment does exist, and EPA invites comment on this important issue.

V. Effect on Air Quality

EPA specifically designed the proposed averaging program to increase compliance flexibility while retaining essentially all of the air quality benefits of the original particulate rulemaking. Thus there should not be any widespread air quality effects—positive or negative—if the program is implemented.

It might appear that with the reduced use of traps under averaging, air quality would surely be harmed. However, EPA believes that with or without averaging, the overall "average" emission level would be close to the standard. In a nonaveraging situation where trap-oxidizers were being applied, few vehicles would emit far below the standard because of the increased cost of traps designed to exceed the control requirements—most vehicles would be built to emit as close to the standard as possible. There would be a more varied mix of vehicles under averaging, with some emitting well below the standard and some above. However, these emissions would still average out to a level near the standard. Hence, the averaging approach should be able to lower the cost of control without significantly affecting the overall average level of emissions.

As was pointed out earlier, however, averaging could result in localized problems if vehicles with very little particulate control became a major portion of, say, a city's taxi fleet. This was the primary reason for including an upper limit for the emissions of any individual engine family. EPA remains concerned about this kind of effect even with a ceiling of 0.4 g/mi and invites commenters to address this issue.

VI. Authority

These regulations are proposed under sections 202, 203, 205, 206, and 301 of the Clean Air Act. This NPRM represents the Agency's first proposal of an averaging program for mobile sources. EPA believes that its broad authority to promulgate regulations covering how manufacturers must demonstrate compliance with Section 202 standards provides authority for these regulations.

Although it appears that Congress did not specifically contemplate an averaging program when it enacted the Clean Air Act, it gave the Agency wide discretion, within the certification framework, to design a compliance program. The proposed regulations are consistent with the certification scheme, and do not conflict with other mobile source statutory provisions. Finally, the program is consistent with Congress' goal to reduce total suspended particulate levels, since averaging should change neither the promulgated standards nor the total fleet emissions under those standards.

VII. Specific Requests for Comments

EPA hopes a wide range of parties will comment on this important rulemaking. Outlined below are a series of items which the Agency would like addressed in comments. While EPA would appreciate comments identified according to items in this request, the outline is not meant to limit comment in any way, and the Agency welcomes comments on other issues as well.

It is EPA's intention to assure all interested parties an opportunity to study all information which may become the basis for final action in this proceeding. Accordingly, EPA will not consider in this rulemaking any material which cannot be made available to the public. Parties who wish to submit information in response to this Notice of Proposed Rulemaking are cautioned that EPA will not consider, but will return to the commenter, any comments which are claimed to be confidential.

A. Comments on the Design of the Program

1. Please discuss each of the following issues, considering the rationale as stated earlier in the preamble. Please be as specific as you can in your comments and suggested remedies.

a. EPA has based the averaging proposal on engine family compliance, as well as company-wide compliance. Please evaluate these key aspects of the program.

b. EPA has proposed an upper limit on the emissions of any LDDV or LDDT family of 0.4 g/mi but EPA is also considering a ceiling of 0.6 g/mi as well as no ceiling at all.

i. Will the 0.4 g/mi limit allow sufficient flexibility in the application of averaging?

ii. If you support a higher upper limit or no limit at all, what would be the effect on the localized emissions of Question D.2?

iii. Would a high upper limit or no limit at all benefit companies with broad product lines or high sales volumes more so than smaller companies?

c. Please comment on the following points relating to averaging particulate emission levels of vehicles designed only for marketing under standards applicable in one geographical region with vehicles designed only for marketing under standards applicable in a different geographical region:

i. How significant a risk would allowing this kind of averaging present to air quality within a given region?

ii. If EPA prohibits this kind of averaging, would EPA create any difficulties for achieving compliance? If so, what are these difficulties?

iii. If EPA does not permit this kind of averaging, what vehicles should EPA include in determining separate averages for different regions? How should EPA treat vehicles which are designed to meet standards in more than one of these regions—should EPA include them in the averages associated with individual regions, or should EPA include them in a separate averaging determination? What are the advantages/disadvantages to the different types of treatment?

d. As discussed earlier in this preamble, an averaging program like the one proposed here could disproportionately benefit companies with broad product lines or higher sales

volumes, improving their competitive position. Do you believe that would be a problem? If so, can you suggest ways in which the averaging program could be improved to minimize the effects on the competitive environment?

e. Please comment on the proposal to allow manufacturers to combine LDDTs with LDDVs in determining compliance. Include an analysis of any anti-competitive effects you find in this option.

f. Please comment on the Agency's assessment of the statutory authority for the proposed program.

g. What other specific or general comments do you have about the proposed program? Where you find problems, it would be helpful to include clear suggestions for how you would remedy them.

B. Comments Relating to Technology

1. Light-duty diesel manufacturers: How many light-duty diesel engines families do you expect to market in 1985?

a. For each family, please list approximate engine sizes, particulate levels, and projected sales. Use best judgments when actual information is not available.

b. If you cannot project to 1985, please answer this question for an earlier model year.

C. Comments Relating to Costs

1. Please estimate the cost to the consumer of 1985 particulate traps, in 1981 dollars. If there is likely to be a range of costs due to size differences, etc., please estimate those costs as well, including your basis.

2. Other than allowing different patterns of trap usage in the fleets, will the proposed averaging program result in any other cost savings or additional costs, as compared with the existing compliance program for particulate emissions? Please quantify as much as you can any such costs or savings.

D. Comments Relating to Air Quality

1. Do you agree with the judgment that the proposed averaging program will result in little or no degradation in air quality, relative to the existing compliance program?

2. Please comment on the possibility of a localized ambient particulate problem resulting from an averaging program (*e.g.*, is it a likely problem; how great or small would the effect be; can you suggest a remedy; etc.).

Administrative Designation

Under Executive Order 12291 EPA must judge whether a regulation is "major" and therefore subject to the requirement of a Regulatory Impact Analysis. This regulation is not major because it involves no negative cost impacts and has no significant adverse effect on competition, productivity, investment, employment, or innovation.

This regulation was submitted to the Office of Management and Budget for review as required by Executive Order 12291. Any comments from OMB to EPA and any EPA response to those comments are available for public inspection in the docket cited at the beginning of this preamble.

Effect on Small Entities

Section 605 of the Regulatory Flexibility Act requires that the Administrator certify regulations that do not have a significant impact on a substantial number of small entities. I certify that this regulation indeed does not have any significant impact on small entities. Few, if any, small entities market diesel engines which are the subject of these regulations. Therefore, no small entities should see any significant impact.

Impacts of Reporting Requirements

The information collection requirements in this proposed rule will be submitted to the Office of Management and Budget (OMB) for clearance under the Paperwork Reduction Act of 1980. The information requirements or recordkeeping in this proposed rule will not take place until it has been cleared by OMB. If OMB approves, the information collection requirements will take effect as set forth in this proposal rule. If not, EPA will revise the information requirements (and this rule, if appropriate) to comply with OMB's determination.

Dated: November 26, 1981.

Anne M. Gorsuch,

Administrator.

PART 85—CONTROL OF AIR POLLUTION FROM MOTOR VEHICLE AND MOTOR VEHICLE ENGINES

For the reasons set forth in the preamble, Part 85 of Chapter I, Title 40 of the Code of Federal Regulations is proposed to be amended as follows:

§§ 85.1503, 85.1504, 85.1505, 85.1602, 85.1608, 85.1803 and 85.1805 [Amended]

By adding the words "(or family particulate emission limits, as defined in Part 86)" after the word "standard" or "standards" in:

a. Section 85.1503, introductory paragraph;

b. Section 85.1504, introductory paragraph;

c. Section 85.1504(a);

d. Section 85.1504(a)(1);

e. Section 85.1504(b);

f. Section 85.1505(a);

g. Section 85.1602(a)(1);

h. Section 85.1608(b), second sentence;

i. Section 85.1803(a), first sentence;

j. Section 85.1805(a)(1), first and second sentences.

§ 85.1602 [Amended]

2. By adding the words "(or family particulate emission limit, as defined in Part 86)" after the word "standard" in:

a. Section 85.1602(b).

Note.—As an aid for the reader in understanding the proposed rule changes for light-duty vehicle and truck particulate regulations below, the amendatory language for each section identifies those paragraphs which are proposed to be added or for which significant changes are being proposed. However, minor changes which do not affect the meaning of a section, such as the addition of the phrase "or family particulate emission limit(s)" when the word "standard(s)" is used, or an updating of a section reference number, are not specifically identified in the section headings (though the affected paragraphs are rewritten). In addition, the amendatory language identifies paragraphs affecting light-duty truck high-altitude regulations which are proposed to be completely or partially deleted and which were erroneously added to Part 86 during a previous rulemaking.

PART 86—CONTROL OF AIR POLLUTION FROM NEW MOTOR VEHICLES AND NEW MOTOR VEHICLE ENGINES: CERTIFICATION AND TEST PROCEDURES

For the reasons set out in the preamble, Part 86 of Chapter I of Title 40 of the Code of Federal Regulations is proposed to be amended as follows:

1. Section 86.085–2 is proposed to be added to read as follows:

§ 86.085–2 Definitions.

The definitions in § 86.084–2 remain effective. The definitions listed in this section apply beginning with the 1985 model year.

"Composite particulate standard", for a manufacturer which elects to average Diesel light-duty vehicles and Diesel light-duty trucks together in the particulate averaging program, means that standard calculated according to the following equation and rounded to the nearest hundredth gram-per-mile:

$$\frac{(PROD_{LDV})(STD_{LDV})+(PROD_{LDT})(STD_{LDT})}{(PROD_{LDV}+PROD_{LDT})} = \text{Manufacturer Composite Particulate Standard}$$

where:

$PROD_{LDV}$ represents the manufacturer's total Diesel light-duty vehicle production for a given model year.
STD_{LDV} represents the light-duty vehicle particulate standard.
$PROD_{LDT}$ represents the manufacturer's total Diesel light-duty truck production for a given model year.
STD_{LDT} represents the light-duty truck particulate standard.

"Family particulate emission limit" means the particulate emission level to which an engine family is certified in the particulate averaging program, expressed to an accuracy of one hundredth gram-per-mile.

"Production-weighted average" means the manufacturer's production-weighted average particulate emission level, for certification purposes, of all of its Diesel engine families included in the particulate averaging program. It is calculated at the end of the model year by multiplying each family particulate emission limit by its respective production, summing these terms, and dividing the sum by the total production of the affected families.

2. Section 86.085–8 is proposed to be amended by revising paragraph (a)(1)(iv) to read as follows:

§ 86.085–8 Emission standards for 1985 light-duty vehicles.

(a)(1) * * *

(iv) *Particulate emissions* (Diesels only). 0.20 gram per vehicle mile (0.124 gram per vehicle kilometer). A manufacturer may elect to include all or some of its Diesel light-duty vehicles in the particulate averaging program. If the manufacturer elects to average Diesel light-duty vehicles and Diesel light-duty trucks together in the particulate averaging program, its composite particulate standard applies to its entire Diesel light-duty vehicle and Diesel light-duty truck fleet and is calculated as defined in § 86.085–2. Under the particulate averaging program, the maximum allowable particulate emission level for Diesel light-duty vehicles is 0.40 gram per vehicle mile (0.248 gram per vehicle kilometer).

* * * * *

3. Section 86.085–9 is proposed to be amended by removing paragraphs (d) and (e) and by revising paragraph (a)(1)(iv) to read as follows:

§ 86.085–9 Emission standards for 1985 light-duty trucks.

(a)(1) * * *

(iv) *Particulate emissions.* (Diesels only). 0.26 gram per vehicle mile (0.162 gram per vehicle kilometer). A manufacturer may elect to include all or some of its Diesel light-trucks in the particulate averaging program. If the manufacturer elects to average both Diesel light-duty vehicles and Diesel light-duty trucks together in the particulate average program, its composite particulate standard applies to its entire Diesel light-duty vehicle and Diesel light-duty truck fleet and is calculated as defined in § 86.085–2. Under the particulate averaging program, the maximum allowable particulate emission level for Diesel light-duty trucks is 0.04 gram per vehicle mile (0.248 gram per vehicle kilometer).

* * * * *

4. Section 86.085–21, which differs from § 86.084–21 only in that paragraphs (a) and (c) are revised and paragraph (b)(7) is introduced, is proposed to be added to read as follows:

§ 86.085–21 Application for certification.

(a) A separate application for a certificate of conformity shall be made for each set of standards (or family particulate emission limit as appropriate) and each class of new motor vehicles or new motor vehicle engines. Such applicaton shall be made to the Administrator by the manufacturer and shall be updated and corrected by amendment.

(b) The application shall be in writing, signed by an authorized representative of the manufacturer, and shall include the following:

(1)(i) Identification and description of the vehicles (or engines) covered by the application and a description of their engine (vehicle only), emission control system and fuel system components. This shall include a detailed description of each auxiliary emission control device (AECD) to be installed in or on any certification test vehicle (or certification test engine).

(ii)(A) The manufacturer shall provide to the Administrator in the preliminary application for certification:

(*1*) A list of those parameters which are physically capable of being adjusted (including those adjustable parameters for which access is difficult) and that, if adjusted to settings other than the manufacturer's recommended setting, may affect emissions;

(*2*) A specification of the manufacturer's intended physically adjustable range of each such parameter, and the production tolerances of the limits or stops used to establish the physically adjustable range;

(*3*) A description of the limits or stops used to establish the manufacturer's intended physically adjustable range of each adjustable parameter, or any other means used to inhibit adjustment;

(*4*) The nominal or recommended setting, and the associated production tolerances, for each such parameter.

(B) The manufacturer may provide, in the preliminary application for certification, information relating to why certain parameters are not expected to be adjusted in actual use and to why the physical limits or stops used to establish the physically adjustable range of each parameter, or any other means used to inhibit adjustment, are expected to be effective in preventing adjustment of parameters on in-use vehicles to settings outside the manufacturer's intended physically adjustable ranges. This may include results of any tests to determine the difficulty of gaining access to an adjustment or exceeding a limit as intended or recommended by the manufacturer.

(C) The Administrator may require to be provided detailed drawings and descriptions of the various emission related components, and/or hardware samples of such components, for the purpose of making his determination of which vehicle or engine parameters will be subject to adjustment for new certification and Selective Enforcement Audit testing and of the physically adjustable range for each such vehicle or engine parameter.

(2) Projected U.S. sales data sufficient to enable the Administrator to select a test fleet representative of the vehicles (or engines) for which certification is requested.

(3) A description of the test equipment and fuel proposed to be used.

(4)(i) A description of the test procedures to be used to establish the evaporative emission deterioration factors required to be determined and supplied in § 86.084–23(b)(2).

(ii)(A) A description of the test procedures to be used to establish the durability data or the exhaust emission deterioration factors required to be determined and supplied in § 86.084–23(b)(1).

(B)(*1*) A statement of the useful life of use of each light-duty truck engine family and heavy-duty engine family up to engine retirement or rebuild (whichever occurs first) as determined by the manufacturer on the basis of the following:

(*i*) For existing engine families, survey information on in-service vehicles (or engines) or;

(*ii*) For new engine families, durability testing of prototype vehicles (or engines) or a combination of benchtype component life evaluations and survey information on similar previous vehicles (or engines).

(*2*) The manufacturer shall not determine an engine family's useful life to be less than the basic period of the mechanical warranty on the engine

assembly. This useful life shall be expressed as a period of engine or vehicle operation or as an equivalent vehicle mileage (or both) and shall be consistent with the rebuild criteria specified in paragraph (b)(4)(ii)(C) of this section. The manufacturer shall include in the application the data or information on which it based its determination of the useful life.

(C) For each light-duty truck engine family and heavy-duty engine family, a statement of the criteria which are to be used in determining the need for engine rebuild and their critical values, including the following:

(*1*) The minimum cylinder compression for any one cylinder and for any two cylinders, in pounds per square inch (or kilopascals). Compression shall be measured without the addition of oil or another fluid into the cylinder.

(*2*) The maximum rate of engine lubricant oil usage by the engine, in quarts per 1,000 miles (or quarts per 30 hours).

(*3*) The maximum mass of foreign metal in the crankcase, in grams per quart of crankcase oil.

(*4*) Any other measurable indicator(s) of engine condition approved by the Administrator and the critical value(s) which signal(s) the need for a rebuild.

(*5*) A statement of recommended maintenance and procedures necessary to assure that the vehicle (or engines) covered by a certificate of conformity in operation conform to the regulations, and a description of the program for training of personnel for such maintenance, and the equipment required.

(*6*) At the option of the manufacturer, the proposed composition of the emission-data test fleet or (where applicable) the durability-data test fleet.

(*7*) If the manufacturer elects to participate in the particulate averaging program for Diesel light-duty vehicles and/or Diesel light-duty trucks, the application must list the family particulate emission limit and the anticipated production volume of the family for the model year.

(i) The manufacturer chooses the level of the family particulate emission limits, accurate to one hundredth of a gram-per-mile. Under particulate averaging, family particulate emission limits may not exceed 0.40 gram per vehicle mile (0.248 gram per vehicle kilometer).

(ii) The manufacturer may at any time during production elect to change the level of any family particulate emission limit(s) by submitting the new limit(s) to the Administrator and by demonstrating compliance with the limit(s) as described in §§ 86.085–28(a)(5) and 86.085–28(b)(5).

(c) Complete copies of the application and of any amendments thereto, as well as any changes described in § 86.085–21(b)(7)(ii), and of all notifications under §§ 86.079–32, 86.079–33, and 86.079–34 shall be submitted in such multiple copies as the Administrator may require.

(d) Incomplete light-duty trucks shall have a maximum completed curb weight and maximum completed frontal area specified by the manufacturer.

5. Section 86.085–23, which differs from § 86.084–23 only in that paragraph (c) is revised and paragraph (f) is introduced, is proposed to be added to read as follows:

§ 86.085–23 Required data.

(a) The manufacturer shall perform the tests required by the applicable test procedures, and submit to the Administrator the following information: *Provided, however,* That:

(1) If requested by the manufacturer, the Administrator may waive any requirement of this section for testing of vehicles (or engines) for which emission data are available, or will be made available, under the provisions of § 86.085–29, or

(2) If requested by the manufacturer, the Administrator may waive any requirement of this section for testing of vehicles at zero kilometers of operation.

(b)(1)(i) Exhaust emission durability data on such light-duty vehicles tested in accordance with applicable test procedures and in such numbers as specified, which will show the performance of the systems installed on or incorporated in the vehicle for extended mileage, as well as a record of all pertinent maintenance performed on the test vehicles.

(ii) Exhaust emission deterioration factors for light-duty trucks and heavy-duty engines and all test data that are derived from the testing described under § 86.085–21(b)(4)(ii)(A) as well as a record of all pertinent maintenance. Such testing shall be designed and conducted in accordance with good engineering practice to assure that the engines covered by a certificate issued under § 86.085–30 will meet the emission standards (or family particulate emission limits as appropriate) in §§ 86.085–09, 86.084–10, or § 86.085–11 as appropriate, in actual use for the useful life of the engine.

(2) Evaporative emission deterioration factors for each evaporative emission family-evaporative emission control system combination and all test data that are derived from testing described under § 86.085–21(b)(4)(i) designed and conducted in accordance with good engineering practice to assure that the vehicles covered by a certificate issued under § 86.085–30 will meet the evaporative emission standards in §86.085–8 or § 86.085–9, as appropriate, for the useful life of the vehicle.

(3) [Reserved]

(4) [Reserved]

(c) Emission data.

(1) Certification engines. Emission data on such engines tested in accordance with applicable emission test procedures and in such numbers as specified, which will show their emissions after 125 hours of operation. A zero-hour test may be performed after the engine has been approved by the Administrator to begin service accumulation.

(d) A statement that the vehicles (or engines) for which certification is requested conform to the requirements in § 86.078–5(b), and that the descriptions of tests performed to ascertain compliance with the general standards in § 86.078–5(b), and the data derived from such tests, are available to the Administrator upon request.

(e)(1) A statement that the test vehicles (or test engines) with respect to which data are submitted to demonstrate compliance with the applicable standards (or family particulate emission limits) of this subpart are in all material respects as described in the manufacturer's application for certification, have been tested in accordance with the applicable test procedures utilizing the fuels and equipment described in the application for certification and that on the basis of such tests the vehicles (or engines) conform to the requirements of this part. If such statements cannot be made with respect to any vehicle (or engine) tested, the vehicle (or engine) shall be identified, and all pertinent data relating thereto shall be supplied to the Administrator. If, on the basis of the data supplied and any additional data as required by the Administrator, the Administrator determines that the test vehicle (or test engine) was not as described in the application for certification or was not tested in accordance with the applicable test procedures utilizing the fuels and equipment as described in the application for certification, the Administrator may make the determination that the vehicle (or engine) does not meet the applicable standards (or family particulate emission limits). The provisions of § 86.085–30(b) shall then be followed.

(2) For evaporative emission durability, or light-duty truck or heavy-duty engine exhaust emission durability,

a statement of compliance with paragraph (b)(2) or (b)(1)(ii) of this section, as applicable.

(f) Additionally, for manufacturers participating in the particulate averaging program:

(1) In the application for certification, a statement that the vehicles for which certification is requested will not, to the best of the manufacturer's belief, when included in the manufacturers' production-weighted average emission level, cause the applicable particulate standard(s) to be exceeded.

(2) No longer than 90 days after the end of a given model year of production, the number of vehicles produced in each engine family at each certified family particulate emission limit, along with the resulting production-weighted average particulate emission level.

6. Section 86.085–28 is proposed to be amended by revising paragraphs (a)(2), (a)(3), (a)(4)(iii), (a)(4)(iv), (b)(2), (b)(3), (b)(4)(i), (b)(4)(iv), and (b)(7) and by adding paragraphs (a)(5), (a)(6), and (b)(5) to read as follows:

§ 86.085–28 Compliance with emission standards.

(a) * * *

(2) The applicable exhaust and fuel evaporative emission standards (and family particulate emission limits, as appropriate) of this subpart apply to the emissions of vehicles for their useful life.

(3) Since it is expected that emission control efficiency will change with mileage accumulation on the vehicle, the emission level of a vehicle which has accumulated 50,000 miles will be used as the basis for determining compliance with the standards (or family particulate emission limits, as appropriate).

(4) The procedure for determining compliance of a new motor vehicle with exhaust emission standards (or family particulate emission limits, as appropriate) is as follows:

* * * * *

(iii) The emissions to compare with the standard (or family particulate emission limit, as appropriate) shall be the adjusted emissions of paragraphs (a)(4)(ii)(A) and (B) of this section for each emission-data vehicle. Before any emission value is compared with the standard (or family particulate emission limit, as appropriate), it shall be rounded, in accordance with ASTM E 29–67, to two significant figures. The rounded emission values may not exceed the standard (or family particulate emission limit, as appropriate).

(iv) Every test vehicle of an engine family must comply with the exhaust emission standards (or family particulate emission limits, as appropriate), as determined in paragraph (a)(4)(iii) of this section, before any vehicle in that family may be certified.

* * * * *

(5) If a manufacturer chooses to change the level of any family particulate emission limit(s) in the particulate averaging program, compliance with the new limit(s) must be shown using the existing certification data for that engine family, any Selective Enforcement Audit data, and any emissions data EPA has accumulated for purposes of determining compliance under § 207(c) of the Act.

(6) If a manufacturer chooses to participate in the particulate averaging program, the production-weighted average of the family particulate emission limits of all affected engine families must comply with the particulate standards in §§ 86.085–8(a)(1)(iv) and 86.085–9(a)(1)(iv), as appropriate, at the end of the production year.

(b) * * *

(2) The exhaust and fuel evaporative emission standards (and the family particulate emission limits, as appropriate) of § 86.085–9 apply to the emissions of vehicles for their useful life.

(3) Since emission control efficiency generally decreases with the accumulation of mileage on the vehicle, deterioration factors will be used in combination with emission-data vehicle test results as the basis for determining compliance with the standards (or family particulate emission limits, as appropriate).

(4)(i) Paragraph (b)(4) of this section describes the procedure for determining compliance of a new vehicle with exhaust emission standards (or family particulate emission limits, as appropriate), based on deterioration factors supplied by the manufacturer.

* * * * *

(iv) The emission values to compare with the standards (or family particulate emission limits, as appropriate) shall be the adjusted emission values of paragraph (b)(4)(iii) of this section rounded to two significant figures in accordance with ASTM E 29–67 for each emission-data engine.

(5)(i) Paragraph (b)(5) of this section applies only to manufacturers which elect to participate in the particulate averaging program.

(ii) If a manufacturer chooses to change the level of any family particulate emission limit(s), compliance with the new limit(s) must be shown using the existing certification data for that engine family, any Selective Enforcement Audit data, and any emissions data EPA has accumulated for purposes of determining compliance under section 207(c) of the Act.

(iii) The production-weighted average of the family particulate emission limits of all affected engine families must comply with the particulate standards in §§ 86.085–8(a)(1)(iv) and 86.085–9(a)(1)(iv), as appropriate, at the end of the production year.

* * * * *

(7) Every test vehicle of an engine family must comply with all applicable standards (and family particulate emission limits, as appropriate), as determined in paragraph (b)(4)(iv) and paragraph (b)(6) of this section, before any vehicle in that family will be certified.

* * * * *

7. Section 86.085–29, which differs from § 86.084–29 only in that paragraph (a)(3) is revised, is proposed to be added to read as follows:

§ 86.085–29 Testing by the Administrator.

(a)(1) Paragraph (a) of this section applies to light-duty vehicles and light-duty trucks.

(2) The Administrator may require that any one or more of the test vehicles be submitted to him, at such place or places as he may designate, for the purposes of conducting emissions tests. The Administrator may specify that he will conduct such testing at the manufacturer's facility, in which case instrumentation and equipment specified by the Administrator shall be made available by the manufacturer for test operations. Any testing conducted at a manufacturer's facility pursuant to this paragraph shall be scheduled by the manufacturer as promptly as possible.

(3)(i) Whenever the Administrator conducts a test on a test vehicle, the results of that test shall, unless subsequently invalidated by the Administrator, comprise the official data for the vehicle at the prescribed test point and the manufacturer's data for that prescribed test point shall not be used in determining compliance with emission standards (or family particulate emission limits as appropriate).

(ii) Whenever the Administrator does not conduct a test on a test vehicle at a test point, the manufacturer's test data will be accepted as the official data for that point: *Provided,* That if the Administrator makes a determination based on testing under paragraph (a)(2) of this section, that there is a lack of correlation between the manufacturer's test equipment and the test equipment used by the Administrator, no

manufacturer's test data will be accepted for purposes of certification until the reasons for the lack of correlation are determined and the validity of the data is established by the manufacturer: *And further provided,* That if the Administrator has reasonable basis to believe that any test data submitted by the manufacturer is not accurate or has been obtained in violation of any provisions of this part, the Administrator may refuse to accept that data as the official data pending retesting or submission or further information. If the manufacturer conducts more than one test on a vehicle, as authorized under § 86.084–26 (a)(3)(i) or (b)(4)(i), the data from the last test in that series of tests on that vehicle, will constitute the official data.

(iii)(A)(*1*) The Administrator may adjust or cause to be adjusted any adjustable parameter of an emission data vehicle or engine which the Administrator has determined to be subject to adjustment for certification and Selective Enforcement Audit testing in accordance with § 86.084–22(e)(1), to any setting within the physically adjustable range of that parameter, as determined by the Administrator in accordance with § 86.084–22(e)(3)(i), prior to the performance of any tests to determine whether such vehicle or engine conforms to applicable emission standards (or family particulate emission limits, as appropriate), including tests performed by the manufacturer under § 86.085–23(c)(1). However, if the idle speed parameter is one which the Administrator has determined to be subject to adjustment, the Administrator shall not adjust it to a setting which causes a higher engine idle speed than would have been possible within the physically adjustable range of the idle speed parameter on the vehicle before it accumulated any mileage, all other parameters being adjusted identically for the purpose of comparison. The Administrator, in making or specifying such adjustments, will consider the effect of the deviation from the manufacturer's recommended setting on emissions performance characteristics as well as the likelihood that similar settings will occur on in-use light-duty vehicles or light-duty trucks. In determining likelihood, the Administrator will consider factors such as, but not limited to, the effect of the adjustment on vehicle performance characteristics and surveillance information from similar in-use vehicles.

(*2*) For those vehicles or engine parameters which the Administrator has not determined to be subject to adjustment during certification and Selective Enforcement Audit testing in accordance with § 86.084–22(e)(1), the emission-data vehicle presented to the Administrator for testing shall be calibrated within the production tolerances applicable to the manufacturer's specifications to be shown on the vehicle label (see § 86.085–35 (a)(1)(iii)(D) or (a)(2)(iii)D)) as specified in the application for certification. If the Administrator determines that a vehicle is not within such tolerances, the vehicle will be adjusted, at the facility designated by the Administrator, prior to the test and an engineering report shall be submitted to the Administrator describing the corrective action taken. Based on the engineering report, the Administrator will determine if the vehicle will be used as an emission-data vehicle.

(B) If the Administrator determines that the test data developed on an emission-data vehicle under paragraph (a)(3)(i) of this section would cause that vehicle to fail due to excessive 4,000 mile emissions or by application of the appropriate deterioration factor, then the following procedure shall be observed:

(*1*) The manufacturer may request a retest. Before the retest, those vehicle or engine parameters which the Administrator has not determined to be subject to adjustment for certification and Selective Enforcement Audit testing in accordance with § 86.084–22(e)(1) may be readjusted to manufacturer's specification, if these adjustments were made incorrectly prior to the first test. The Administrator may adjust or cause to be adjusted any parameter which the Administrator has determined to be subject to adjustment to any setting within the physically adjustable range of that parameter, as determined by the Administrator in accordance with § 86.084–22(e)(3)(i). However, if the idle speed parameter is one which the Administrator has determined to be subject to adjustment, the Administrator shall not adjust it to a setting which causes a higher engine idle speed than would have been possible within the physically adjustable range of the idle speed parameter on the vehicle before it accumulated any mileage, all other parameters being adjusted identically for the purpose of comparison. Other maintenance or repairs may be performed in accordance with § 86.084–25. All work on the vehicle shall be done at such location and under such conditions as the Administrator may prescribe.

(*2*) The vehicle will be retested by the Administrator and the results of this test shall comprise the official data for the emission-data vehicle.

(iv) If sufficient durability data are not available at the time of any emission test conducted under paragraph (a)(2) of this section to enable the Administrator to determine whether an emission-data vehicle would fail, the manufacturer may request a retest in accordance with the provisions of paragraphs (a)(3)(iii)(A) and (B) of this section. If the manufacturer does not promptly make such request, she shall be deemed to have waived the right to a retest. A request for retest must be made before the manufacturer removes the vehicle from the test premises.

(b)(1) Paragraph (b) of this section applies to heavy-duty engines.

(2) The Administrator may require that any one or more of the test engines be submitted to her, at such place or places as she may designate, for the purposes of conducting emissions tests. The Administrator may specify that she will conduct such testing at the manufacturer's facility, in which case instrumentation and equipment specified by the Administrator shall be made available by the manufacturer for test operations. Any testing conducted at a manufacturer's facility pursuant to this paragraph shall be scheduled by the manufacturer as promptly as possible.

(3)(i) Whenever the Administrator conducts a test on a test engine the results of that test, unless subsequently invalidated by the Administrator, shall comprise the official data for the engine at that prescribed test point and the manufacturer's data for that prescribed test point shall not be used in determining compliance with emission standards.

(ii) Whenever the Administrator does not conduct a test on a test engine at a test point, the manufacturer's test data will be accepted as the official data for that test point: *Provided,* That if the Administrator makes a determination based on testing under paragraph (b)(2) of this section, that there is a lack of correlation between the manufacturer's test equipment and the test equipment used by the Administrator, no manufacturer's test data will be accepted for purposes of certification until the reasons for the lack of correlation are determined and the validity of the data is established by the manufacturer: *And further provided,* That if the Administrator has reasonable basis to believe that any test data submitted by the manufacturer is not accurate or has been obtained in violation of any provision of this part, the Administrator may refuse to accept that data as the official data pending

retesting or submission of further information.

(iii)(A)(*1*) The Administrator may adjust or cause to be adjusted any adjustable parameter of an emission-data engine which the Administrator has determined to be subject to adjustment for certification testing in accordance with § 86.084–22(e)(1), to any setting within the physically adjustable range of that parameter, as determined by the Administrator in accordance with § 86.084–22(e)(3)(i), prior to the performance of any tests to determine whether such engine conforms to applicable emission standards, including tests performed by the manufacturer under § 86.085–23(c)(2). However, if the idle speed parameter is one which the Administrator has determined to be subject to adjustment, the Administrator shall not adjust it to a setting which causes a higher engine idle speed than would have been possible within the physicially adjustable range of the idle speed parameter on the engine before it accumulated any dynamometer service, all other parameters being identically adjusted for the purpose of the comparison. The Administrator, in making or specifying such adjustments, may consider the effect of the deviation from the manufacturer's recommended setting on emissions performance characteristics as well as the likelihood that similar settings will occure on in-use heavy-duty engines. In determining likelihood, the Administrator may consider factors such as, but not limited to, the effect of the adjustment on engine performance characteristics and surveillance information from similar in-use engines.

(*2*) For those engine parameters which the Administrator has not determined to be subject to adjustment for certification testing in accordance with § 86.084–22(e)(1), the emission-data engine presented to the Administrator for testing shall be calibrated within the production tolerances applicable to the manufacturer's specifications to be shown on the engine label (see § 86.085–35(a)(3)(iii)) as specified in the application for certification. If the Administrator determines that an engine is not within such tolerances, the engine shall be adjusted at the facility designated by the Administrator prior to the test and an engineering report shall be submitted to the Administrator describing the corrective action taken. Based on the engineering report, the Administrator will determine if the engine shall be used as an emission-data engine.

(B) If the Administrator determines that the test data developed under paragraph (b)(3)(iii)(A) of this section would cause the emission-data engine to fail due to excessive 125-hour emission values or by the application of the appropriate deterioration factor, then the following procedure shall be observed:

(*1*) The manufacturer may request a retest. Before the retest, those engine parameters which the Administrator has not determined to be subject to adjustment for certification testing in accordance with § 86.084–22(e)(1) may be readjusted to the manufacturer's specifications, if these adjustments were made incorrectly prior to the first test. The Administrator may adjust or cause to be adjusted any parameter which the Administrator has determined to be subject to adjustment in accordance with § 86.084–22(e)(3)(i). However, if the idle speed parameter is one which the Administrator has determined to be subject to adjustment, the Administrator shall not adjust it to a setting which causes a higher engine idle speed than would have been possible within the physically adjustable range of the idle speed parameter on the engine before it accumulated any dynamometer service, all other parameters being identically adjusted for the purpose of the comparison. Other maintenance or repairs may be performed in accordance with § 86.084–25. All work on the vehicle shall be done at such location and under such conditions as the Administrator may prescribe.

(*2*) The engine will be retested by the Administrator and the results of this test shall comprise the official data for the emission-data engine.

(iv) If sufficient durability data are not available at the time of any emission test conducted under paragraph (b)(2) of this section to enable the Administrator to determine whether an emission-data engine would fail, the manufacturer may request a retest in accordance with the provisions of paragraph (b)(3)(iii)(B) (*1*) and (*2*) of this section. If the manufacturer does not promptly make such request, he shall be deemed to have waived the right to a retest. A request for retest must be made before the manufacturer removes the engine from the test premises.

8. Section 86.085–30, which differs from § 86.084–30 only in that paragraphs (a)(1) and (a)(3) are revised, paragraphs (a)(4), (a)(5), and (a)(6) are removed and reserved, paragraph (a) is introduced, and paragraphs (b)(1)(i)(D), (b)(1)(i)(E), (b)(1)(ii)(D), and (b)(1)(ii)(E) are removed, is proposed to be added to read as follows:

§ 86.085–30 Certification.

(a)(1) If, after a review of the test reports and data submitted by the manufacturer, data derived from any inspection carried out under § 86.078–7(c), and any other pertinent data or information, the Administrator determines that a test vehicle(s) (or test engine(s) meet(s) the requirements of the Act and of this subpart, he will issue a certificate of conformity with respect to such vehicle(s) (or engine(s)) except in cases covered by paragraph (c) of this section.

(2) Such certificate will be issued for such period not to exceed one model year as the Administrator may determine and upon such terms as he may deem necessary to assure that any new motor vehicle (or new motor vehicle engine) covered by the certificate will meet the requirements of the Act and of this part. Each such certificate shall contain the following language:

> This certificate covers only those new motor vehicles (or new motor vehicle engines) which conform, in all material respects, to the design specifications that applied to those vehicles (or engines) described in the application for certification and which are produced during the——model year production period of the said manufacturer, as defined in 40 CFR 86.085–2.
>
> It is a term of this certificate that the manufacturer shall consent to all inspections described in 40 CFR 86.078–7(c), 86.606, and 86.1006 and authorized in a warrant or court order. Failure to comply with the requirements of such a warrant or court order may lead to revocation or suspension of this certificate as specified in 40 CFR 86.085–30 (c), (d), or (e). It is also a term of this certificate that this certificate may be revoked, suspended, or voided for the other reasons stated in § 86.085–30 (c), (d), or (e).

(3) Each such certificate will certify compliance with no more than one set of standards (or one family particulate emission limit, as appropriate). One certificate will be issued for each engine family except:

(i) For gasoline-fueled light-duty vehicles and light-duty trucks, one certificate will be issued for each engine family-evaporative emission family combination.

(ii) For Diesel light-duty vehicles and light-duty trucks included in the particulate averaging program, the manufacturer may at any time during production elect to change the level of any family particulate emission limit by demonstrating compliance with the new limit as described in §§ 86.085–28(a)(5) and 86.085–28(b)(5). New certificates issued under this paragraph will be applicable only for vehicles produced subsequent to the date of issuance.

(4) [Reserved]
(5) [Reserved]
(6) [Reserved]
(7) Certificates issued for light-duty vehicles or light-duty trucks certified with catalytic converters shall be subject to the following term in addition to the term in paragraph (a)(2) of this section: "Catalyst-equipped vehicles, otherwise covered by this certificate, which are driven outside the United States, Canada, and Mexico will be presumed to have been operated on leaded gasoline resulting in deactivation of the catalysts. If these vehicles are imported or offered for the importation without retrofit of the catalyst, they will be considered not to be within the coverage of this certificate unless included in a catalyst control program operated by a manufacturer or a United States Government Agency and approved by the Administrator."
(8) Certificates issued for incomplete light-duty trucks shall be subject to the following term in addition to the term in paragraph (a)(2) of this section: "For incomplete light-duty trucks, this certificate covers only those new motor vehicles which when completed by having the primary load-carrying device or container attached, conform to the maximum curb weight and frontal area limitations described in the application for certification as required in 40 CFR 86.085–21 (d)."
(9) Certificates issued for heavy-duty engines shall be subject to the following term in addition to the term in paragraph (a)(2) of this section: "For heavy-duty engines, this certificate covers only those new motor vehicle engines installed in heavy-duty vehicles which conform to the minimum gross vehicle weight rating, curb weight, or frontal area limitations for heavy-duty vehicles described in 40 CFR 86.085–2."
(10) Certificates issued for Diesel light-duty vehicles and Diesel light-duty trucks which are a part of the particulate averaging program will be subject to the following term in addition to the term of paragraph (a)(2) of this section: "It is an express condition of this certificate that the manufacturer's production-weighted average of the particulate emission limits of all participating engine families not exceed the applicable particulate standard(s) at the end of the model year, as determined in accordance with 40 CFR Part 86. The certificate is void *ab initio* for those vehicles causing any exceedance of the particulate standard(s)."
(b)(1) The Administrator will determine whether a vehicle (or engine) covered by the application complies with applicable standards (or family particulate emission limits, as appropriate) by observing the following relationships:
(i) *Light-duty vehicle.* (A) The durability-data vehicle(s) selected under § 86.084–24(c)(1)(i) shall represent all vehicles of the same engine-system combination.
(B) The emission-data vehicle(s) selected under § 86.084–24(b)(1) (ii) through (b)(1)(iv) shall represent all vehicles of the same engine-system combination as applicable.
(C) The emission-data vehicle(s) selected under § 86.084–24(b)(1) (vii)(A) and (b)(1)(vii)(B) shall represent all vehicles of the same evaporative control system within the evaporative family.
(ii) *Light-duty trucks.* (A) [Reserved]
(B) The emission-data vehicle(s) selected under § 86.084–24(b)(1) (ii), shall represent all vehicles of the same engine-system combination as applicable.
(C) The emission-data vehicle(s) selected under § 86.084–24(b)(1) (vii)(A) and (b)(1)(vii)(B) shall represent all vehicles of the same evaporative control system within the evaporative family.
(iii) *Heavy-duty engines.* (A) A gasoline-fueled emission-data test engine selected under § 86.084–24(b)(2)(ii) and (iv) shall represent all engines in the same family of the same engine displacement-exhaust emission control system combination.
(B) A gasoline-fueled emission-data test engine selected under § 86.084–24(b)(2)(iii) shall represent all engines in the same engine family of the same engine displacement-exhaust emission control system combination.
(C) A diesel emission-data test engine selected under § 86.084–24 (b)(3)(ii) shall represent all engines in the same engine-system combination.
(D) A diesel emission-data test engine selected under § 86.084–24 (b)(3)(iii) shall represent all engines of that emission control system at the rated fuel delivery of the test engine.
(E) [Reserved]
(2) The Administrator will proceed as in paragraph (a) of this section with respect to the vehicles (or engines) belonging to an engine family or engine family-evaporative emission family combination (as applicable), all of which comply with all applicable standards (or family particulate emission limits, as appropriate).
(3) If, after a review of the test reports and data submitted by the manufacturer, data derived from any additional testing conducted pursuant to § 86.085–29, data or information derived from any inspection carried out under § 86.078–7(c) or any other pertinent data or information, the Administrator determines that one or more test vehicles (or test engines) of the certification test fleet do not meet applicable standards (or family particulate emission limits, as appropriate), she will notify the manufacturer in writing, setting forth the basis for her determination. Within 30 days following receipt of the notification, the manufacturer may request a hearing on the Administrator's determination. The request shall be in writing, signed by an authorized representative of the manufacturer and shall include a statement specifying the manufacturer's objections to the Administrator's determination and data in support of such objections. If, after a review of the request and supporting data, the Administrator finds that the request raises a substantial factual issue, she shall provide the manufacturer a hearing in accordance with § 86.078–6 with respect to such issue.
(4) For light-duty vehicles and light-duty trucks the manufacturer may, at its option, proceed with any of the following alternatives with respect to an emission-data vehicle determined not in compliance with all applicable standards (and family particulate emission limits, as appropriate) for which it was tested:
(i) Request a hearing under § 86.078–6; or
(ii) Remove the vehicle configuration (or evaporative vehicle configuration, as applicable) which failed, from his application;
(A) If the failed vehicle was tested for compliance with exhaust emission standards (or a family particulate emission limit, as appropriate) only: The Administrator may select, in place of the failed vehicle, in accordance with the selection criteria employed in selecting the failed vehicle, a new emission-data vehicle to be tested for exhaust emission compliance only.
(B) If the failed vehicle was tested for compliance with both exhaust and evaporative emission standards: The Administrator may select, in place of the failed vehicle, in accordance with the selection criteria employed in selecting the failed vehicle, a new emission-data vehicle which will be tested for compliance with both exhaust and evaporative emission standards. If one vehicle cannot be selected in accordance with the selection criteria employed in selecting the failed vehicle, then two vehicles may be selected (i.e., one vehicle to satisfy the exhaust emission vehicle selection criteria and one vehicle to satisfy the evaporative emission vehicle selection criteria). The

vehicle selected to satisfy the exhaust emission vehicle selection criteria will be tested for compliance with exhaust emission standards only. The vehicle selected to satisfy the evaporative emission vehicle selection criteria will be tested for compliance with both exhaust and evaporative emission standards; or

(iii) Remove the vehicle configuration (or evaporative vehicle configuration, as applicable) which failed from the application and add a vehicle configuration(s) (or evaporative vehicle configuration(s), as applicable) not previously listed. The Administrator may require, if applicable, that the failed vehicle be modified to the new engine code (or evaporative emission code, as applicable) and demonstrate by testing that it meets applicable standards (or the family particulate emission limit, as appropriate) for which it was originally tested. In addition, the Administrator may select, in accordance with the vehicle selection criteria given in § 86.084–24(b), a new emission-data vehicle or vehicles. The vehicles selected to satisfy the exhaust emission vehicle selection criteria will be tested for compliance with exhaust emission standards (or family particulate emission limits, as appropriate) only. The vehicles selected to satisfy the evaporative emission vehicle selection criteria will be tested for compliance with both exhaust and evaporative emission standards; or

(iv) Correct a component or system malfunction and show that with a correctly functioning system or component the failed vehicle meets applicable standards (or the family particulate emission limit, as appropriate) for which it was originally tested. The Administrator may require a new emission-data vehicle, of identical vehicle configuration (or evaporative vehicle configuration, as applicable) to the failed vehicle, to be operated and tested for compliance with the applicable standards (or the family particulate emission limit, as appropriate) for which the failed vehicle was originally tested.

(5) For heavy-duty engines the manufacturer may, at his option, proceed with any of the following alternatives with respect to any engine family represented by a test engine(s) determined not in compliance with applicable standards:

(i) Request a hearing under § 86.078–6; or

(ii) Delete from the application for certification the engines represented by the failing test engine. (Engines so deleted may be included in a later request for certification under § 86.079–32.) The Administrator will then select in place of each failing engine an alternate engine chosen in accordance with selection criteria employed in selecting the engine that failed; or

(iii) Modify the test engine and demonstrate by testing that it meets applicable standards. Another engine which is in all material respects the same as the first engine, as modified, shall then be operated and tested in accordance with applicable test procedures.

(6) If the manufacturer does not request a hearing or present the required data under paragraphs (b)(4) or (b)(5) (as applicable) of this section, the Administrator will deny certification.

(c)(1) Notwithstanding the fact that any certification vehicle(s) (or certification engine(s)) may comply with other provisions of this subpart, the Administrator may withhold or deny the issuance of a certificate of conformity (or suspend or revoke any such certificate which has been issued) with respect to any such vehicle(s) (or engine(s)) if:

(i) The manufacturer submits false or incomplete information in his application for certification thereof;

(ii) The manufacturer renders inaccurate any test data which he submits pertaining thereto or otherwise circumvents the intent of the Act, or of this part with respect to such vehicle (or engine);

(iii) Any EPA Enforcement Officer is denied access on the terms specified in § 86.078–7(c) to any facility or portion thereof which contains any of the following:

(A) The vehicle (or engine);

(B) Any components used or considered for use in its modification or buildup into a certification vehicle (or certification engine);

(C) Any production vehicle (or production engine) which is or will be claimed by the manufacturer to be covered by the certificate;

(D) Any step in the construction of a vehicle (or engine) described in paragraph (c)(1)(iii) of this section;

(E) Any records, documents, reports, or histories required by this part to be kept concerning any of the above;

(iv) Any EPA Enforcement Officer is denied "reasonable assistance" (as defined in § 86.078–7(c)) in examining any of the items listed in paragraph (c)(1)(iii) of this section.

(2) The sanctions of withholding, denying, revoking, or suspending of a certificate may be imposed for the reasons in paragraphs (c)(1) (i), (ii), (iii), or (iv) of this section only when the infraction is substantial.

(3) In any case in which a manufacturer knowingly submits false or inaccurate information or knowingly renders inaccurate or invalid any test data or commits any other fraudulent acts and such acts contribute substantially to the Administator's decision to issue a certificate of conformity, the Administrator may deem such certificate void *ab initio*.

(4) In any case in which certification of a vehicle (or engine) is proposed to be withheld, denied, revoked, or suspended under paragraph (c)(1)(iii) or (c)(1)(iv) of this section, and in which the Administrator has presented to the manufacturer reasonable evidence that a violation of § 86.078–7(c) in fact occurred, the manufacturer, if he wishes to contend that, even though the violation occurred, the vehicle (or engine) in question was not involved in the violation to a degree that would warrant withholding denial, revocation, or suspension of certification under either paragraph (c)(1)(iii) or (c)(1)(iv) of this section, shall have the burden of establishing that contention to the satisfaction of the Administrator.

(5) Any revocation or suspension of certification under paragraph (c)(1) of this section shall:

(i) Be made only after the manufacturer concerned has been offered an opportunity for a hearing conducted in accordance with § 86.078–6 hereof.

(ii) Extend no further than to forbid the introduction into commerce of vehicles (or engines) previously covered by the certification which are still in the hands of the manufacturer, except in cases of such fraud or other misconduct as makes the certification invalid *ab initio*.

(6) The manufacturer may request in the form and manner specified in paragraph (b)(3) of this section that any determination made by the Administrator under paragraph (c)(1) of this section to withhold or deny certification be reviewed in a hearing conducted in accordance with § 86.078–6. If the Administrator finds, after a review of the request and supporting data, that the request raises a substantial factual issue, he will grant the request with respect to such issue.

(d)(1) *For light-duty vehicles.* Notwithstanding the fact that any vehicle configuration or engine family may be covered by a valid outstanding certificate of conformity, the Administrator may suspend such outstanding certificate of conformity in whole or in part with respect to such vehicle configuration or engine family if:

(i) The manufacturer refuses to comply with the provisions of a test order issued by the Administrator pursuant to § 86.603; or

(ii) The manufacturer refuses to comply with any of the requirements of § 86.603; or

(iii) The manufacturer submits false or incomplete information in any report or information provided pursuant to the requirements of § 86.609; or

(iv) The manufacturer renders inaccurate any test data which he submits pursuant to § 86.609; or

(v) Any EPA Enforcement Officer is denied access to a facility on the terms specified in § 86.606; or

(vi) Any EPA Enforcement Officer is denied the opportunity on the terms specified in § 86.606, to:

(A) Monitor vehicle selection pursuant to § 86.607, or

(B) Select vehicles for testing pursuant to § 86.607, or

(C) Monitor vehicle testing performed to satisfy any of the requirements of this part; or

(vii) Any EPA Enforcement Officer is denied "reasonable assistance" as defined in § 86.606 in examining any of the items listed in that section; or

(viii) The manufacturer refuses to comply with the requirements of §§ 86.604(a), 86.605, and 86.607, 86.608, 86.610, or 86.611.

(2) The sanction of suspending a certificate may not be imposed for the reasons in paragraphs (d)(1)(i), (ii), or (viii) of this section where such refusal is caused by conditions and circumstances outside the control of the manufacturer which renders it impossible to comply with those requirements. Such conditions and circumstances shall include, but not be limited to, any uncontrollable factors which results in the temporary unavailability of equipment and personnel needed to conduct the required tests, such as equipment breakdown or failure or illness of personnel, but shall not include failure of the manufacturer to adequately plan for and provide the equipment and personnel needed to conduct the tests. The manufacturer will bear the burden of establishing the presence of the conditions and circumstances required by this paragraph.

(3) The sanctions of suspending a certificate may be imposed for the reasons in paragraphs (d)(1)(iii), (iv), (v), (vi), or (vii) of this section only when the infraction is substantial.

(4) In any case in which a manufacturer knowingly submitted false or inaccurate information or knowingly rendered inaccurate any test data or committed any other fraudulent acts, and such acts contributed substantially to the Administrator's original decision not to suspend or revoke a certificate of conformity in whole or in part, the Administrator may deem such certificate void from the date of such fraudulent act.

(5) In any case in which certification of a vehicle is proposed to be suspended under paragraph (d)(1)(v), (d)(1)(vi), or (d)(1)(vii) of this section, and in which the Administrator has presented to the manufacturer involved reasonable evidence that a violation of § 86.606 in fact occurred, the manufacturer, if he wishes to contend that even though the violation occurred, the vehicle configuration or engine family in question was not involved in the violation to the degree that would warrant suspension of certification under either paragraph (d)(1)(v), (d)(1)(vi), or (d)(1)(vii) of this section, shall have the burden of establishing that contention to the satisfaction of the Administrator.

(6) Any suspension of certification under paragraph (d)(1) of this section shall:

(i) Be made only after the manufacturer concerned has been offered an opportunity for a hearing conducted in accordance with § 86.613 hereof, and

(ii) Not apply to vehicles no longer in the hands of the manufacturer.

(e) *For light-duty trucks and heavy-duty engines.* (1) Notwithstanding the fact that any vehicle configuration or engine family may be covered by a valid outstanding certificate of conformity, the Administrator may suspend such outstanding certificate of conformity in whole or in part with respect to such vehicle or engine configuration or engine family if:

(i) The manufacturer refuses to comply with the provisions of a test order issued by the Administrator pursuant to § 86.1003; or

(ii) The manufacturer refuses to comply with any of the requirements of § 86.1003; or

(iii) The manufacturer submits false or incomplete information in any report or information provided pursuant to the requirements of § 86.1009; or

(iv) The manufacturer renders inaccurate any test data submitted pursuant to § 86.1009; or

(v) Any EPA Enforcement Officer is denied the opportunity to conduct activities related to entry and access as authorized in § 86.1006 of this part and in a warrant or court order presented to the manufacturer or the party in charge of a facility in question; or

(vi) EPA Enforcement Officers are unable to conduct activities related to entry and access as authorized in § 86.1006 of this part because a manufacturer has located a facility in a foreign jurisdiction where local law prohibits those activities; or

(vii) The manufacturer refuses to or in fact does not comply with the requirements of §§ 86.1004(a), 86.1005, 86.1007, 86.1008, 86.1010, 86.1011, or 86.1013.

(2) The sanction of suspending a certificate may not be imposed for the reasons in paragraphs (e)(1)(i), (ii), or (vii) of this section where such refusal or denial is caused by conditions and circumstances outside the control of the manufacturer which renders it impossible to comply with those requirements. Such conditions and circumstances shall include, but are not limited to, any uncontrollable factors which result in the temporary unavailability of equipment and personnel needed to conduct the required tests, such as equipment breakdown or failure or illness of personnel, but shall not include failure of the manufacturers to adequately plan for and provide the equipment and personnel needed to conduct the tests. The manufacturer will bear the burden of establishing the presence of the conditions and circumstances required by this paragraph.

(3) The sanction of suspending a certificate may be imposed for the reasons outlined in paragraph (e)(1)(iii), (iv), or (v) of this section only when the infraction is substantial.

(4) In any case in which a manufacturer knowingly submitted false or inaccurate information or knowingly rendered inaccurate any test data or committed any other fraudulent acts, and such acts contributed substantially to the Administrator's original decision not to suspend or revoke a certificate of conformity in whole or in part, the Administrator may deem such certificate void from the date of such fraudulent act.

(5) In any case in which certification of a light-duty truck or heavy-duty engine is proposed to be suspended under paragraph (e)(1)(v) of this section and in which the Administrator has presented to the manufacturer involved reasonable evidence that a violation of § 86.1006 in fact occurred, if the manufacturer wishes to contend that, although the violation occurred, the vehicle or engine configuration or engine family in question was not involved in the violation to a degree that would warrant suspension of certification under paragraph (e)(1)(v) of this section, he shall have the burden of establishing

that contention to the satisfaction of the Administrator.

(6) Any suspension of certification under paragraph (e)(1) of this section shall:

(i) Be made only after the manufacturer concerned has been offered an opportunity for a hearing conducted in accordance with § 86.1014 and,

(ii) Not apply to vehicles or engines no longer in the hands of the manufacturer.

(7) Any voiding of a certificate of conformity under paragraph (e)(4) of this section shall be made only after the manufacturer concerned has been offered an opportunity for a hearing conducted in accordance with § 86.1014.

10. Section 86.085–35, which differs from § 86.084–35 only in that paragraphs (a)(1)(iii)(D), (a)(1)(iii)(F), (a)(2)(iii)(D), (a)(2)(iii)(g) are revised, is proposed to be added to read as follows:

§ 86.085–35 Labeling.

(a) The manufacturer of any motor vehicle (or motor vehicle engine) subject to the applicable emission standards (and family particulate emission limits, as appropriate) of this subpart, shall, at the time of manufacture, affix a permanent legible label, of the type and in the manner described below, containing the information hereinafter provided, to all production models of such vehicles (or engines) available for sale to the public and covered by a certificate of conformity under § 86.084–30(a).

(1) *Light-duty vehicles.* (i) A permanent, legible label shall be affixed in a readily visible position in the engine compartment.

(ii) The label shall be affixed by the vehicle manufacturer who has been issued the certificate of conformity for such vehicle, in such a manner that it cannot be removed without destroying or defacing the label. The label shall not be affixed to any equipment which is easily detached from such vehicle.

(iii) The label shall contain the following information lettered in the English language in block letters and numerals, which shall be of a color that contrasts with the background of the label:

(A) The label heading: Vehicle Emission Control Information;

(B) Full corporate name and trademark of manufacturer;

(C) Engine displacement (in cubic inches), engine, family identification and evaporative family identification;

(D) Engine tune-up specifications and adjustments, as recommended by the manufacturer in accordance with the applicable emission standards (or family particulate emission limit, as appropriate), including but not limited to idle speed(s), ignition timing, the idle air-fuel mixture setting procedure and value (e.g., idle CO, idle air-fuel ratio, idle speed drop), high idle speed, initial injection timing, and valve lash (as applicable), as well as other parameters deemed necessary by the manufacturer. These specifications should indicate the proper transmission position during tune-up and what accessories (e.g., air conditioner), if any, should be in operation.

(E) The prominent statement: "(Manufacturer's corporate name) has determined this vehicle has an average useful life of ———— miles or —— hours of operation, whichever occurs first." The manufacturer may alter this statement only to express the useful life in terms other than miles or hours (e.g., years, or hours only).

(F) The subordinate addition to the statement in subparagraph (2)(iii)(E) of this paragraph: "This engine's actual life may vary depending on its service application. (For additional information see the owner's maintenance instructions.) This engine conforms to U.S. EPA regulations applicable to 19— Model Year New Heavy-Duty Engines for its useful life."

(G) For vehicles which are a part of the particulate averaging program, the family particulate emission limit to which the vehicle was certified.

(2) *Light-duty trucks.* (i) A legible, permanent label shall be affixed in a readily visible position in the engine compartment.

(ii) The label shall be affixed by the vehicle manufacturer who has been issued the certificate of conformity for such vehicle, in such a manner that it cannot be removed without destroying or defacing the label. The label shall not be affixed to any equipment which is easily detached from such vehicle.

(iii) The label shall contain the following information lettered in the English language in block letters and numerals, which shall be of a color that contrasts with the background of the label.

(A) The label heading: Important Vehicle Information;

(B) Full corporate name and trademark of manufacturer;

(C) Engine displacement (in cubic inches), engine, family identification and evaporative family identification;

(D) Engine tune-up specifications and adjustments, as recommended by the manufacturer in accordance with the applicable emission standards (or family particulate emission limit, as appropriate), including but not limited to idle speed(s), ignition timing, the idle air-fuel mixture setting procedure and value (e.g., idle CO, idle air-fuel ratio, idle speed drop), high idle speed, initial injection timing, and valve lash (as applicable), as well as other parameters deemed necessary by the manufacturer. These specifications should indicate the proper transmission position during tune-up and what accessories (e.g., air conditioner), if any, should be in operation.

(E) The prominent statement: "(Manufacturer's corporate name) has determined this vehicle has an average useful life of ———— miles or —— hours of operation, whichever occurs first." The manufacturer may alter this statement only to express the useful life in terms other than miles or hours (e.g., years, or hours only).

(F) The subordinate addition to the statement in subparagraph (2)(iii)(E) of this paragraph: "This engine's actual life may vary depending on its service application. (For additional information see the owner's maintenance instructions.) This engine conforms to U.S. EPA regulations applicable to 19— Model Year New Heavy-Duty Engines for its useful life."

(G) For vehicles which are a part of the particulate averaging program, the family particulate emission limit to which the vehicle was certified.

(3) *Heavy-duty engines.* (i) A permanent legible label shall be affixed to the engine in a position in which it will be readily visible after installation in the vehicle.

(ii) The label shall be attached to an engine part necessary for normal engine operation and not normally requiring replacement during engine life.

(iii) The label shall contain the following information lettered in the English language in block letters and numerals which shall be of a color that contrasts with the background of the label:

(A) The label heading: IMPORTANT ENGINE INFORMATION;

(B) Full corporate name and trademark of manufacturer;

(C) Engine displacement (in cubic inches) and engine family and model designations;

(D) Date of engine manufacture (month and year);

(E) Engine specifications and adjustments as recommended by the manufacturer. These specifications should indicate the proper transmission position during tuneup and what accessories (e.g., air conditioner), if any, should be in operation;

(F) For gasoline-fueled engines the label should include the idle speed, ignition timing, and the idle air-fuel mixture setting procedure and value (e.g., idle CO, idle air-fuel ratio, idle speed drop), and valve lash.

(G) For diesel engines the label should include the advertised hp at rmp, fuel rate at advertised hp in mm3/stroke, valve lash, initial injection timing, and idle speed.

(H) The prominent statement: "(Manufacturer's corporate name) has determined that this engine has an average useful life of ———— miles or —— hours of operation, whichever occurs first." The manufacturer may alter this statement only to express the

useful life in terms other than miles or hours (e.g., years, or hours only).

(I) The subordinate addition to the statement in paragraph (a)(3)(iii)(H) of this section: "This engine's actual life may vary depending on its service application. (For additional information see the owner's maintenance instructions.) This engine conforms to U.S. EPA regulations applicable to 19— Model Year New Heavy-Duty Engines for its useful life."

(iv) The label may be made up of one or more pieces; *Provided,* That all pieces are permanently attached to the same engine or vehicle part as applicable.

(b) The provisions of this section shall not prevent a manufacturer from also reciting on the label that such vehicle (or engine) conforms to any applicable state emission standards for new motor vehicles (or new motor vehicle engines) or any other information that such manufacturer deems necessary for, or useful to, the proper operation and satisfactory maintenance of the vehicle (or engine).

(c)(1) The manufacturer of any light-duty vehicle or light-duty truck subject to the emission standards (or family particulate emission limits, as appropriate) of this subpart shall, in addition and subsequent to setting forth those statements on the label required by the Department of Transportation (DOT) pursuant to 49 CFR 567.4, set forth on the DOT label or on an additional label located in proximity to the DOT label and affixed as described in 40 CFR 567.4(b), the following information in the English language, lettered in block letters and numerals not less than three thirty-seconds of an inch high, of a color that contrasts with the background of the label:

(i) The Heading: "Vehicle Emission Control Information."

(ii)(A) *For light-duty vehicles,* the statement: "This Vehicle Conforms to U.S. EPA Regulations Applicable to 19— Model Year New Motor Vehicles."

(B) *For light-duty trucks,* the statement: "(Manufacturer's Corporate Name) Has Determined That This Vehicle Has An Average Useful Life Of ——— Miles Or —— Hours Of Operation, Whichever Occurs First. This Engine's Actual Life May Vary Depending On Its Service Application. (For additional information see the owner's maintenance instructions.) This Vehicle Conforms To U.S. EAP Regulations Applicable To 19—Model Year New Motor Vehicles, For Its Useful Life." The manufacturer may alter this statement only to express the useful life in terms other than miles or hours (e.g., years, or hours only).

(iii) One of the following statements, as applicable, in letters and numerals not less than six thirty-seconds of an inch high and of a color that contrasts with the background of the label:

(A) For all vehicles certified as non-catalyst-equipped: "NON-CATALYST"

(B) For all vehicles certified as catalyst-equipped which are included in a manufacturer's catalyst control program for which approval has been given by the Administrator: "CATALYST—APPROVED FOR IMPORT"

(C) For all vehicles certified as catalyst-equipped which are not included in a manufacturer's catalyst control program for which prior approval has been given by the Administrator: "CATALYST"

(2) In lieu of selecting either of the labeling options of paragraph (c)(1) of this section, the manufacturer may add the information required by paragraph (c)(1)(iii) of this section to the label required by paragraph (a) of this section. The required information will be set forth in the manner prescribed by paragraph (c)(1)(iii) of this section.

(d)(1) Incomplete light-duty trucks or incomplete heavy-duty vehicles optionally certified as light-duty trucks shall have the following prominent statement printed on the label required in paragraph (a)(2) of this section in lieu of the statement required by paragraph (a)(2)(iii)(E) of this section: "(Manufacturer's Corporate Name) has determined that this vehicle has an average useful life of ——— miles or hours of operation, whichever occurs first." The manufacturer may alter this statement only to express the useful life in terms other than miles or hours (e.g., years, or hours only).

(2) The subordinate addition to the statement in subparagraph (1) of this paragraph: "This vehicle's actual life may vary depending on its service application. (For additional information see the owner's maintenance instuctions.) This engine conforms to U.S. EPA regulations applicable to 19— Model Year New Heavy-Duty Engines when installed in a vehicle completed at a curb weight of more than 6,000 pounds or with a frontal area greater than 45 square feet for its useful life."

(e)(1) Incomplete heavy-duty vehicles having an 8,500-pound gross vehicle weight rating or less shall have the following prominent statement printed on the label required in paragraph (a)(3) of this section in lieu of the statement required by paragraph (a)(3)(iii)(H) of this section: "(Manufacturer's corporate name) has determined that this engine has an average useful life of ——— miles or —— hours of operation, whichever occurs first." The manufacturer may alter this statement only to express the useful life in terms other than miles or hours (e.g., years, or hours only).

(2) In addition, the label shall have the following subordinate statement in lieu of the statement required by paragraph (a)(3)(iii)(I) of this section: "This engine's actual life may vary depending on its service application. (For additional information see the owner's maintenance instructions.) This engine conforms to U.S. EPA regulations applicable to 19— Model Year New Heavy-Duty Engines when installed in a vehicle completed at a curb weight of more than 6,000 pounds or with a frontal area greater than 45 square feet for its useful life."

(f) The manufacturer of any incomplete vehicle shall notify the purchaser of such vehicle of any curb weight, frontal area, or gross vehicle weight rating limitations affecting the emission certificate applicable to that vehicle. This notification shall be transmitted in a manner consistent with National Highway Traffic Safety Administration safety notification requirements published in 49 CFR Part 56.

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